DOCUMENT RESUME

ED 027 990 95 RC 003 247

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Outmigration from North Dakota, A Comparison between Male Outmigrants in Four States and their North Dakota Counterparts.

North Dakota Univ., Grand Forks.

Spons Agency- Office of Education (DHEW), Washington, D.C. Bureau of Research.

Pub Date 68

Note- 37p.

EDRS Price MF-$0.25 HC-$1.95

Descriptors- Community Characteristics, Comparative Analysis, *Demography, Males, *Migrants, Migration Patterns, Mobility, Occupational Aspiration, Population Trends, *Psychological Characteristics, Relocation, *Rural Population, Social Adjustment, Social Differences, *Social Factors, Socioeconomic Influences

Identifiers- *North Dakota

A study compared social and social-psychological characteristics of 112 male respondents who moved to 4 other states from North Dakota (the most rural state in the nation) between the years 1961 and 1965 with similar characteristics of 513 North Dakota male residents who remained in their respective communities throughout the five-year period. Hypotheses involved demographic characteristics, socioeconomic characteristics, occupational aspiration, community satisfaction, and anticipated social cost. Migrants were more likely than stables to be married, to be younger, and to have a higher level of educational attainment. Migrants tended to have higher ranked non-farm occupations, to change occupations more, and to aspire to more prestigious positions. Migrants were less satisfied with certain attributes of their home community, and they were less likely to feel they would have difficulty finding housing and a job and making family adjustments in another community. (JAM)

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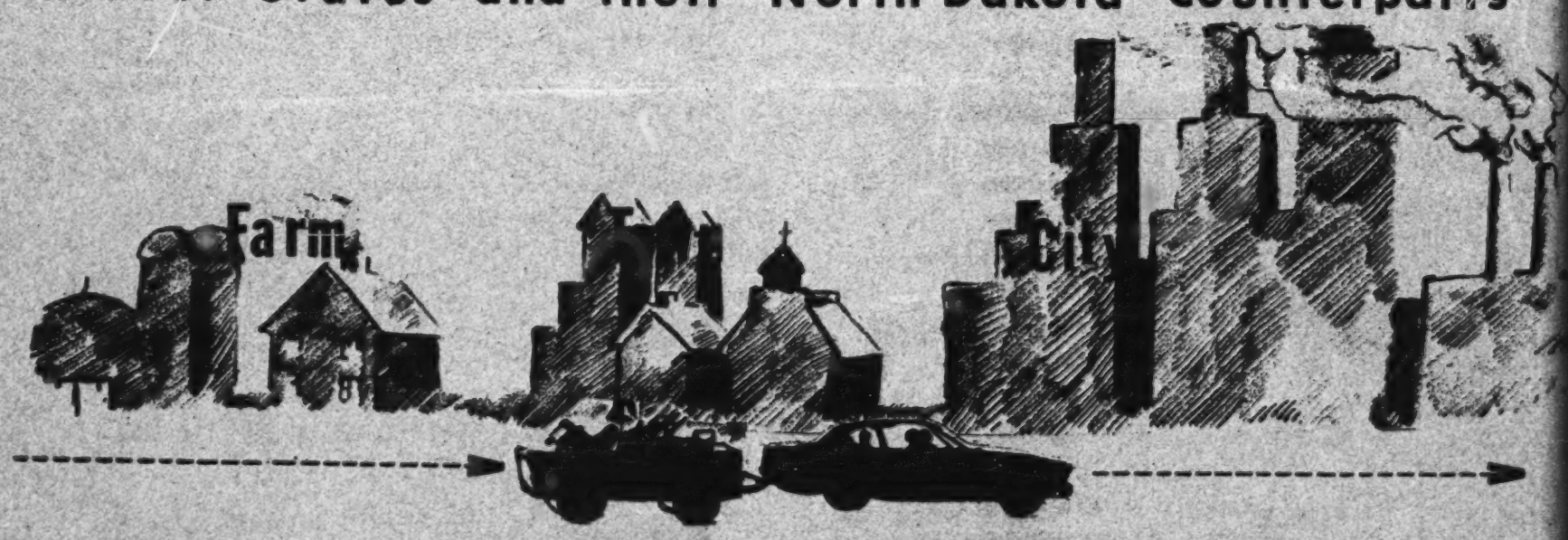
OUTMIGRATION FROM NORTH DAKOTA

A Comparison Berween Male Outmigrants In Four States and their North Dakota Counterparts



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MONOGRAPH NUMBER FOUR NINETEEN HUNDRED SIXTY-EIGHT

RC003247

ACKNOWLEDGMENTS

The authors wish to acknowledge the efforts of all who assisted in the research. Special mention is made of the contribution of Jerry Berg who developed programs for statistical analysis on the IBM 360 at the University of North Dakota Computer Center. The assistance of Connie Johnson in preparing the preliminary and final drafts of this report and David Ripley for his contributions to the cover and the printing of the material is also acknowledged.

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INTRODUCTION

This monograph provides a basic description of social and social psychological characteristics of a sample of male respondents who moved from North Dakota during the years from 1961 through 1965. Primary emphasis is placed on a comparison between the outmigrants and a sample of residents from 21 areas in North Dakota who have remained in their community throughout the five year period. The discussion focuses on the comparison of the stables and outmigrants in terms of percentage distribution. However, appropriate tests of significance are made in order to ascertain the extent to which differences might be generalized to the populations from which the samples are drawn.

The area of migration has been important in sociological and social psychological research. The formal demographer has been concerned largely with the estimation of migration rates as well as the other factors which comprise the demographic equation where population change in a given geographic area is seen as a function of natural increase (consisting of the differences between number of births minus the number of deaths) and net migration (migration into minus migration from the area).

Other students of population concentrate on research on the relationship between such social characteristics as age and sex, marital, occupation status and migration behavior. Social psychologists investigate the correlations of value orientation, aspirations, and satisfaction levels (among other variables) with migration.

The study of migration from North Dakota is basic to an understanding of problems facing this rural area. According to the 1960 census of population, North Dakota is the most rural state in the nation with 64.8 percent of the population living in rural areas. It has long been a state which has been characterized by high net outmigration. It was estimated that during the 1950-1960 period the state's natural growth was offset in large part by the net migration of 105,000 people from the state.[1]

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1 Vangsness, Elmer, "North Dakota Resources Inventory," Fargo, North Dakota: Unpublished survey compiled at North Dakota State University, 1962.

ore recent estimates made by the North Dakota Economic Development Commission indicated that the ate has experienced a net loss of 45,541 from 1960 through 1966.[2] Such net outmigration from North akota is part of a general process which responds to changing capacities in agricultural based areas and attraction and perceived opportunity in the more urban areas of the nation. The pattern of rural-urban igration has long been one of the major streams involved in internal migration.

PREVIOUS STUDY

The present literature in the area of migration research is based mainly on census data. Wilber ndicated that "Since most of the census data on migration is easily accessible, and resources to ather fresh data in the field are limited, an easy and perhaps justifiable course of action is to resort to census data in planning and executing a research project".[3] With regard to North Dakota the work of John M. Gillette in the area of population study emphasizing migration into and from North Dakota was based on the use of census data.[4] Census data was used by Ramsey and others in analyzing migration in Minnesota, Ramsey and Anderson in New York, and McNamara, New and Pappenfort in Missouri, and Riley in South Dakota.[5] Although most findings have been based on census data, some research conclusions have been supported by survey data, Noteworthy examples have been survey research which

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2 Unpublished data of North Dakota Economic Development Commission, Bismarck, North Dakota, 1967.

3 George L. Wilber, "Determinants of Migration Research and their Consequences," Population Research and Administrative Planning, ed. by George L. Wilber and Ellen S. Bryant, State College, Mississippi: Proceedings of the Conference on Southern Population, Dec. 5-6, 1961, Conference Series No. 10, Division of Sociology and Rural Life, Mississippi State University, June 1962, p. 53.

4 John M. Gillette, Social Economics of North Dakota, Minneapolis, Minn: Burgess Publishing Co. 1942, pp. 67-85.

5 Charles E. Ramsey, Allan D. Orman, and Lowry Nelson, Migration in Minnesota, 1940-1950, St. Paul, University of Minnesota Agricultural Experiment Station, Bulletin 422, Jan. 1954; Charles E. Ramsey and Walfred A. Anderson, Migration of the New York State Population, Ithaca, N.Y.; Cornell University Agricultural Experiment Station, Bulletin 929, June 1958; Robert L. McNamara, Peter New, and Donnen Pappenfort, Rural-Urban Population Change and Migration in Missouri 1940-1950, Columbia Missouri; University of Missouri Agricultural Experiment Station Bulletin 620, April 1959; Marvin P. Ritz, Where Native South Dakotans Lived in 1960, Brookings, S.D.; South Dakota State University Agricultural Experiment Station, August 1965.

has been directed at Michigan State University.[6] A follow-up study of those who were high school seniors in 1947 in Pennsylvania also has provided valuable research information.[7] Analysis of the including social characteristics of age and education have indicated that both variables are associated with migration behavior. Migrants tend to be younger than nonmigrants.[8] Evidence supports the hypothesis that rural-urban migration is selective of those who have the most education.[9] In analyzing the relationship between marital status and migration it is reported that migration is selective of single people, although the opposite was indicated in a Pennsylvania study.[10]

Migration research has focused on the differentials in occupational status between migrants and stables. According to Thomlinson, occupational characteristics vary according to type of migration. He states that internal migration is more selective of those in higher status categories with professionals ranked at the top and the unskilled being the least likely to migrate.[11] Research in Indiana indicated that migrants tend to have higher incomes than stables.[12]

Previous studies of social participation have indicated the high positive relationship between occupation status and membership in formal associations.[13] Viewing participation as interrelated with

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6 Beegle, J. Allan, "Sociological Aspects of Change in Farm Labor Force," Labor Mobility and Population in Agriculture, Ames, Iowa; Iowa State University Press, 1961, pp. 73-81. Also Harold Goldsmith and J. Allan Beegle, The Initial Phase of Voluntary Migration, East Lansing, Michigan; Michigan State University Rural Sociology Studies, No. 1, June 1962, Rolf Schulze, Jay Artis, and J. Allan Beegle, "The Measurement of Community Satisfaction and the Decision to Migrate," Research Note, Rural Sociology, Vol. 28, Sept. 1963, No 3, pp. 279-283.

7 Harold L. Brown and Roy C. Buck, Factors Associated with the Migrant Status of Young Adult Males from Rural Pennsylvania, University Park, Pa; Pennsylvania State University Agricultural Experiment Station Bulletin 676, 1961.

8 Ralph Thomlinson, Population Dynamics: Causes and Consequences of World Demographic Change, New York: Random House, Inc., 1965. Also Lois K. Cohen and S. Edward Schuh, Job Mobility and Migration, Purdue University Agricultural Experiment Station Research Bulletin, No. 763, May 1963.

9 Walter L. Slocum, Agricultural Sociology, New York; H arper and Brothers, 1962; Thomlinson, Op. Cit.; Wade H. Andrews and Joseph Sardo, Migration and Migrants from Sedgwick County, Colorado Fort Collins, Colo.; Colorado State University Agricultural Experiment Station, Technical Bulletin 82, 1962.

10 William Peterson, Population, New York: The Macmillan Company, 1961; Brown and Buck, Op. Cit.; indicate that a higher proportion of migrants are married.

11 Thomlinson, Op. Cit.

12 Cohen and Schuh, Op. Cit.; Andrews and Sardo, Op. Cit.

13 Philip M. Hansen and Otis Dudley Duncan, The Study of Population: An Inventory and Appraisal Chicago; University of Chicago Press, 1959.

ne's occupational status leads to the conclusion that outmigrants participate more in community organ-
zations than stables although stables who live in the receiver community have higher participation rates
than migrants.

Researchers examine social psychological factors which encourage or retard migration. Such variables are relatively subjective. According to Duncan and Hauser:

> "The individual migrant may experience a stimulus to migrate as a subjective supression of socio-economic conditions in his community. He may also have subjective reactions to his objective social and personal position in his community or to events that happen in his private life (deaths, marriage, etc.). By comparing his position in the present community with, envisaged or possible positions in other communities he arrives at a decision to move or remain.[14]

Thus, the decision to migrate is considered to be a process in which an individual takes into account the satisfaction of life in the present community against the perceived cost of migrating to another area. Important facts then which effect the individual's decision to migrate include the individual's level of satisfaction with his present community as a negative force, expectation of occupational mobility as a variable which would encourage migration behavior, and estimated social cost of leaving the primary groups in the home community and adjusting to a new environment as negative factors influencing the decision.[15]

A review of the literature on migration indicctes that community satisfaction is negatively related to migration behavior. An individual who is not satisfied with the important characteristics of his community is more likely to migrate to secure special advantages of another community. Community satisfaction was found by Yowmans to be a dominant factor in the individual's plan to migrate.[16] On the other hand it is anticipated that there should be a positive relationship between expected change in occupational status and the decision to migrate. A study conducted by Taves and Collier

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14 Beegle, Op. Cit.

15 R.G. Klietsche, Social Response to Population Change and Migration, Ames, Iowa, North Central Regional Publication, No. 153, Iowa State University, Agricultural and Home Economics Experiment Station, Sept. 1964.

16 E. Grant Yowmans, The Educational Attainment and Future Plans of Kentucky Rural Youths, Lexington, Ky.: Kentucky Agricultural Experiment Station Bulletin 664, January 1959.

indicated that occupational aspirations played a dominant role in the individual's perception of migration as part of the "Success Theme" in our culture.[17] The estimates of social cost may be negatively related to migration. If the individual perceives migration as being costly he will probably want to remain in his present community.[18]

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17 Marvin D. Taves and Richard W. Collier, In Search of Opportunity: A Study of Post High School Migration in Minnesota, St. Paul: University of Minnesota Agricultural Experiment Station, Technical Bulletin 247, 1964.

18 Klietache, Op. Cit.

RESEARCH DESIGN

The population from which the samples for this study were drawn consists of North Dakota residents or those who had moved from North Dakota during the five year period of 1962-1966. Because of the characteristics of North Dakota's population a special two stage sampling plan was used. The urban sample was drawn by stratified random sampling to the urban communities which were arranged in order of size. The urban communities selected for the study were Minot, Bismarck, Mandan, Wahpeton, Devils Lake, Rugby, and Bottineau. Systematic sampling of personal property tax rolls provided addresses for the urban sample.

The rural sample was drawn from fourteen counties which were selected at random. Within each county a township was randomly selected. All townships contained less than eighteen square miles of uninhabitable land. Elimination of townships which contained incorporated places of 2,500 or more insured that all households contacted in these areas would consist of rural residents.

Interviewers were asked to contact all heads of households. Most households were headed by males; female heads of the house were widows, single females and married women whose husbands were not available for interviewing. The wide dispersion in marital status of female headed households and the problem of tracing female outmigrants who have married (therefore changing their name since leaving the state) led to the decision that the analysis of data be limited to data provided by male respondents. The urban North Dakota sample consisted of 238 male heads of households. The rural sample consisted of 325 male household heads. The analysis in this paper is based on data provided by stable residents; those who have remained in their North Dakota community during the past five years. The stable male sample consists of 202 urban residents and 311 rural residents.

Outmigrants were identified from two sources. Names and forwarding addresses of migrants were obtained from the personal property tax rolls for the 21 North Dakota sample areas. Additional names and addresses were obtained by asking residents of the sample areas to provide the information for household members and neighbors who had moved to other states during the 1962-1966 period.

Respondents who had left the state on a permanent basis were classified as out-of-state migrants.

Of the number of out-of-state migrants 123 males returned their questionnaire. Seventy-three were from the states of Minnesota, Washington, California and Montana. Interviewers tried to contact non-responding outmigrants in these four states. A total of 39 of the 74 male nonrespondents were interviewed. Analysis of the relationship between social characteristics and mail-back response indicated statistically significant differences in education, income, and occupational categories. So that the comparison between migrants and stables would not be biased by the effectiveness of the data gathering method it was decided to include in the out-of-state migrants sample respondents who either returned their questionnaire form or were interviewed in the four states of Minnesota, Washington, California and Montana.

Initial planning for this survey was performed by personnel associated with Center for Research in Vocational and Technical Education of the University of North Dakota. The bulk of the study was conducted under the direction of the senior author with the assistance of students employed in the Department of Sociology and Anthropology. Coding and other data processing work was performed by trained project assistants. The Bureau of Research, U.S. Office of Education of the Department of Health, Education and Welfare provided almost all the support of this project.

Measurement of social and social psychological variables is primarily at an ordinal level. The variables in which interval data are available are age (coded in tens of years), and number of organizational memberships (coded in terms of number of organizations). Income categories provide an ordinal measure of annual family income; the inclusion of the open-ended category (over $10,000) means that we cannot treat this data as interval. Education is coded in terms of such levels of attainment as completion of high school, enrollment in but not completion of a college program, and graduation from college. Use of such categories provided an ordinal measure of education attainment.

Occupational rank (before the migration period and at present) is measured by placing individuals in such general groupings as professional, semi-skilled and unskilled categories. These are then ordered in terms of prestige. In consideration of problems of ranking, the farmer and farm manager category were not included. Difficulty was found in placing these into an ordinal measure with other categories. Occupational mobility is measured by comparing the prestige of the occupation the individual held five

years ago and his present occupation on the North-Hatt scale (Farmers are included in this measure). If the individual's newer occupation is rated as higher in prestige the individual is included in the "upwardly mobile" category; if the North-Hatt rank of his present position is the same as that of his occupation of five years ago (before the migration period), he is included in the "same" category; if his occupational prestige decreased in the past five years he is coded as "downward mobile".

Occupational aspiration is coded by comparing the North-Hatt rank of the occupation which the respondent expects to enter in a few years with his present occupation. An expected change in occupation which would involve an increase in North-Hatt score places the individual in the Upward category;the "NoChange" group includes those who expect to remain in the same occupation or move into an occupation with the same North-Hatt ranking; those who expect to move to an occupation of lower rank are included in the Downward category.

Community satisfaction indexes include twelve items, most of which were originally provided by Vernon Davies.[19] Eight items express favorable characteristics of the community;Likert type categories of strongly disagree, disagree, undecided, agree, and strongly agree were provided for the following:

a. Anything of a progressive nature is generally approved...
b. With a few exceptions the leaders are capable and ambitious...
c. Persons with real ability are usually given recognition...
d. The climate is as good as any other place in the U.S...
e. The high school teachers are equal to teachers anywhere...
f. The medical facilities are good and adequate...
g. Salaries are usually fair and adequate in the community...
h. Recreation facilities are abundant and varied...

Four items express unfavorable characteristics of the community;Likert-categories were provided for response to the following:

a. It is difficult for people to get together on anything...
b. A person has to leave the community in order to have a good time...
c. Employment opportunities are practically nonexistent...
d. People have to do without adequate shopping facilities...

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[19] Vernon Davies, "Development of a Scale to Rate Attitude of Community Satisfaction", Rural Sociology 10, September 3, 1945, pp. 246-255.

Five measures of anticipated social cost are included in this study. It was recognized that considerations of problems in finding housing, finding a job, getting transportation, getting to know friends and neighbors and making family adjustment may effect the decision to migrate. Such problems are termed the "social cost" variable involved in the migration process. Individuals were asked to indicate whether they thought they would have a hard time making the following adjustments if they moved to another community: finding housing, finding a job, getting transportation, getting to know friends and neighbors, and making family adjustments.

The statistical analysis in this report presents descriptive statistics involving percentages. Where migration status (stable versus migrant) was cross-classified with a dichotomized variable the test of significance between proportions was used. Where the dependent variable was ordinal in nature, as in the case in the measures of community satisfaction, the Kolmogorov-Smirnov two sample test was used. In the few instances where the dependent variables were interval (age for example) the t-test was used. These tests of significance are used to determine the extent to which it is possible to generalize to the effect that true differences in the populations of stables and outmigrants from North Dakota exist, based on data provided by 513 stable and 112 outmigrants presently living in four states.

HYPOTHESES

The literature reviewed above yields a number of hypotheses which are tested. These hypotheses are listed under headings according to the independent variables of demographic characteristics, socioeconomic factors and the social psychological variables of occupational aspiration, community satisfaction, and anticipated social cost.

Hypotheses including Demographic Characteristics:

1. It is expected that a greater proportion of migrants are single.
2. It is expected that migrants tend to be younger than stables.
3. Migrants are expected to have a higher degree of educational attainment than stables.

Hypotheses including Socio-economic Characteristics:

1. At the time preceding migration, those who will migrate should be more represented in the higher ranked occupational categories than those who will remain stables.
2. Migrants should presently occupy higher occupational statuses than those who remained in their present community.
3. Migrants are expected to have higher incomes than stables.
4. Migrants should hold more organizational memberships than stables.
5. Migrants should experience a higher degree of occupational mobility than stables.

Hypotheses Including Social Psychological Variables:

1. Occupational Aspiration - It is expected that migrants aspire to higher ranked occupations to a greater extent than stables.
2. Community Satisfaction - The hypotheses indicate the expected relationship between migration status and each of twelve items that measure satisfaction toward a segment of the North Dakota community. The following hypotheses support the proposition that migrants are less likely than stables to agree with items which express a favorable attitude toward the community of outmigration:
    a. Migrants will less likely agree with the item that anything of a progressive nature is generally approved.
    b. Migrants will less likely agree with the item that with a few exceptions the leaders are capable and ambitious.
    c. Migrants will less feel that persons with real ability are given recognition.

d. Migrants will less likely agree that the climate is as good as any other place in the U.S.

e. Migrants will less likely agree that the school teachers are equal to teachers anywhere.

f. Migrants will less likely feel that the medical facilities are good and adequate.

g. Migrants will less likely agree with the item that salaries are usually fair and adequate in the North Dakota community.

h. Migrants will less likely agree with the items that Recreational facilities are abundant and varied.

A number of items which express an unfavorable attitude towards the North Dakota community were included in this study. It is expected that migrants are more likely to agree with items which express an unfavorable attitude towards the North Dakota community.

a. Migrants will more likely agree with the item it is difficult for people to get together on anything.

b. Migrants will more likely agree with the item that a person has to leave the community in order to have a good time.

c. Migrants will more likely agree with the item that people have to do without adequate shopping facilities.

d. Migrants will more likely agree with the item that employment opportunities are practically nonexistent.

Hypotheses Including Anticipated Social Cost

Migrants are less likely to anticipate difficulties in the migration process than are the stables:

1. Migrants will anticipate less trouble in the area of finding housing.

2. Migrants will anticipate less trouble in the area of finding a job.

3. Migrants will anticipate less trouble in the area of getting transportation.

4. Migrants will anticipate less trouble in the area of getting to know friends and neighbors.

5. Migrants will anticipate less trouble in the area of making family adjustments.

ANALYSIS

Demographic Variables and Migration

In analyzing the relationship between Marital Status and Migration Behavior it was our hypothesis that more migrants would be single than would those of the stable population. However, this hypothesis was not supported. It appears, the reverse situation is true; for in our data a higher proportion of migrants were married (see Table 1).

Table 1. Relationship Between Marital Status and Migration Category

	Stables		Migrants	
	N	%	N	%
Single	97	19.1	12	10.9
Married	411	80.9	98	89.1
Total	508	100.0	110	100.0
No data	5		2	

P-N.S. Using a one-tailed t-test of significance of difference between proportions.

Analysis of data relating age of stables and migrants indicate that migrants tend to be younger than stable residents of North Dakota. The analysis indicated a mean age of 40.18 years for those who moved from North Dakota and 46.02 years for the stables. The difference in means was statistically significant at the .05 level. (see Table 2)

Table 2. Distribution of Age by Migration Category

	Stables		Migrants	
	N	%	N	%
10-19	2	.4	2	1.8
20-29	24	4.7	23	20.5
30-39	110	21.4	25	22.3
40-49	122	23.8	20	17.9
50-59	108	21.1	18	16.1
60-69	86	16.8	12	10.7
70-79	51	9.9	11	9.8
80-89	10	1.9	1	.9
Total	513	100.0	111	100.0
No data	0		1	
	$\bar{X}$ = 46.02		$\bar{X}$ = 40.18	

$P < .05$ using a one-tailed t-test of significance of difference between means.

Table 3 compares the educational attainments of stables and migrants. The hypothesis was that migrants would have a higher degree of educational attainment than the stables. When tested by a Kolmogorov-Smirnov test our hypothesis was shown to be statistically significant. The greatest difference in the cumulative proportions include categories of those who have failed to attempt post high school work of average kind. More than 82% of the stables as compared to 60.3% of the migrants were in these categories. Thus, the migrants consistently show a higher degree of educational attainment than the stables.

Table 3. Distribution of Educational Attainment by Migration Category

	Stables		Migrants	
	N	%	N	%
Less than 8th grade	53	10.5	1	9.0
Eighth grade only	176	34.7	21	18.9
Some high school	65	12.8	9	8.1
High school graduate	125	24.7	27	24.3
High school + non-college	6	1.2	10	9.0
Some college	47	9.3	7	6.3
College graduate	24	4.7	18	16.2
Graduate work	8	1.6	4	3.6
Graduate degree	3	.6	5	4.5
Total	507	100.0	112	100.0
No Data	6		0	

$P < .05$ using the one-tailed Kolmogorov-Smirnov test.

Comparison between the proportion of college graduates (including those who have taken post-graduate courses) for the migrants (24.3%) and for the stables (6.9%) indicate that the proportion of migrants who have attained at least a four year degree is significantly greater than the proportion of college graduates among the stables. The differences using the test of significance between proportions was statistically significant.

Socioeconomic Variables and Migration

The hypothesis which expected most migrants would be more represented in higher ranked occupational categories than stables at the time prior to migration was supported in the statistical

analysis. Largest differences exist in the cumulative proportions from the professional and the semi-professional foremen categories. The cumulative percentages were 57.2% for the stables as compared to 77% of the migrants, This difference was statistically significant. It is evident that the migrants have greater representation in the higher occupational categories. (See Table 4).

Table 4. Distribution of Occupational Category 5 years before Migration Period by Migration Category.*

	Stables		Migrants	
	N	%	N	%
Professional & semi-professional	26	10.4	19	21.8
Wholesale-retail business	15	6.0	9	10.4
Other proprietors, manager, official	24	9.5	7	8.1
Clerical and kindred	30	11.9	11	12.6
Skilled workers & foremen	49	19.4	21	24.1
Semi-skilled workers	32	12.7	9	10.4
Unskilled and farm laborers	25	9.9	5	5.8
Retired, unemployed	51	20.2	6	6.9
Total	252	100.0	87	100.0
No Data	29		8	

P < .05 using the Kolmogorov-Smirnov one-tailed test

*Farmers and farm managers were not considered in this analysis. These categories do not fit into an ordinal measure of occupational status.

It was our hypothesis that the migrant would presently occupy higher ranked occupation categories than the stables. This difference was supported by the statistical analysis. A relatively high percentage of migrants were in the top three occupation categories professional and semi-professional, wholesale and or retail business, and other proprietors, managers or officials. The percentage of migrants in this was 50.6% while only 25.5% of the stables fit into these groups (see Table 5).

Table 5. Distribution of Present Occupational Status by Migration Category*

	Stables		Migrants	
	N	%	N	%
Professional & Semi-professional	28	10.1	22	26.5
Wholesale or retail business	17	6.1	6	7.2
Other proprietors, managers, officials	25	9.0	14	16.9
Clerical and kindred	30	10.8	7	8.4
Skilled workers and foremen	49	17.7	14	16.9
Semi-skilled workers	32	11.6	6	7.2
Unskilled workers	18	6.5	2	2.4
Retired, unemployed	78	28.2	12	14.5
Total	277	100.0	83	100.0
No Data	21		25	

P $<$.05 using the Kolmogorov-Smirnov one-tailed test

*Farmers and farm managers are not included in this analysis.

It was our expectation that migrants would have a higher income level than that of the stables. This hypothesis was supported by the data. While 64.0% of the stables earned less than $6,000, only 40.6% of the migrants had incomes in this range. This difference was statistically significant and shows that a higher percentage of migrants are in the higher income levels (see Table 6).

Table 6. Distribution of Present Annual Income by Migration Category

	Stables		Migrants	
	N	%	N	%
$1500 and less	55	11.9	0	0.0
1501-3000	69	15.0	5	5.2
3001-4500	79	17.1	8	8.3
4501-6000	92	20.0	9	9.4
6001-7500	59	12.8	17	17.7
7501-9000	49	10.6	16	16.7
9001-10,500	22	4.8	9	9.4
10,501-12,000	14	3.0	13	13.5
Above 12,000	22	4.8	19	19.8
Total	461	100.0	96	100.0
No Data	52		16	

p $<$.05 using the Kolmogorov-Smirnov one-tailed test.

Data on the variable of "number of organizational membership" fail to support the hypothesis that migrants would have a higher number of organizational membership than those of the stable population. Using the t-test the difference between the stables and migrants was found not to be significant. (See Table 7).

Table 7. Distribution of Number of Organizational Membership by Migration Category

	Stables		Migrants	
	N	%	N	%
None	87	17.0	37	33.1
1	217	42.3	26	23.2
2	120	23.4	20	17.9
3	61	11.9	14	12.5
4	21	4.1	12	10.7
5	3	.6	1	.9
6	3	.6	2	1.8
7	1	.2	0	0.0
Total	513	100.0	112	100.0

P-N.S. using a one-tailed t-test for the significance of the difference between means.

The hypothesis that migrants would be more occupationally mobile than stables was supported. The migrants were more mobile both upward and downward than stables. Of the stables only 7.2% had evidenced some change in prestige score as compared to 43% of the migrants (see Table 8).

Table 8. Distribution of Occupational Mobility by Migration Category

	Stables		Migrants	
	N	%	N	%
Downward	14	3.5	12	16.7
None	375	92.8	41	56.9
Upward	15	3.7	19	26.4
Total	404	100.0	72	100.0
No data	109		40	

$P < .05$ using tests of significance between proportions.

In breaking this total change down, we find first of all that 3.5% of the stables experienced downward occupational mobility as compared to 16% of the migrants. This difference of 12.5%

was statistically significant. In the upwardly mobile category the difference involving 3.7% of the stables as compared to 26.4% of the migrants was also statistically significant.

Social Psychological Variables and Migration
Occupational Aspiration

It was our hypothesis that migrants would have higher levels of occupational aspiration than stables. This was supported by analysis when we found that 25.0% of the migrants were upwardly mobile as compared to only 2.3% of the stables. This difference was statistically significant (see Table 9)

Table 9. Distribution of Occupational Aspiration by Migration Category.*

	Stables		Migrants	
	N	%	N	%
Downward	9	3.0	6	9.4
No change	283	94.7	42	65.6
Upward	7	2.3	16	25.0
Total	299	100.0	64	100.0
No Data or N.A.	214		48	

P < .05 using tests of significance between proportions

* Items were not applicable if the individual was not in the labor force at present or failed to indicate that he expected to be in an occupation in the future.

Community Satisfaction

In the investigation of differences between stables and migrants with respect to satisfaction with the North Dakota community, it was expected that migrants would be less likely to agree with the item "anything of a progressive nature is generally approved". The expected relationship was borne out. While 76.1% of the stables agreed or strongly agreed with this statement, 61.9% of the migrants checked these two categories. The Kolmogorov-Smirnov test was used in testing the significance of the maximum difference between the cumulative proportions. This difference was statistically significant (see Table 10).

Table 10. Distribution of Responses to the Item, "Anything of a Progressive Nature is Generally Approved" by Migration Category.

	Stables		Migrants	
	N	%	N	%
Strongly disagree	9	1.8	5	4.8
Disagree	47	9.5	23	21.9
Undecided	62	12.6	12	11.4
Agree	317	64.3	56	53.3
Strongly agree	58	11.8	9	8.6
Total	493	100.0	105	100.0
No response	20		7	

$P < .05$ using the Kolmogorov-Smirnov one-tailed test.

Response to the item "with a few exceptions the leaders are capable and ambitious" failed to support the hypothesis that migrants would rank the North Dakota community as less satisfactory. The difference in cumulative proportions was small with the largest difference existing in the "agree" category. This difference was not statistically significant.

Table 11. Distribution of Responses to the Item, "With a Few Exceptions the Leaders are Capable and Ambitious" by Migration Category.

	Stables		Migrants	
	N	%	N	%
Strongly disagree	8	1.6	1	1.0
Disagree	44	8.9	11	10.7
Undecided	64	13.0	12	11.7
Agree	345	69.8	68	66.0
Strongly agree	33	6.7	11	10.7
Total	494	100.0	103	100.0
No response	19		9	

P-N.S. using the Kolmogorov-Smirnov one-tailed test.

Analysis of response to the item "persons with real ability are usually given recognition" support the expectation that migrants are less satisfied with the North Dakota community (see Table 12). While 78.6 percent of stables either agreed or strongly agreed with this statement, 61.9% of the migrants selected either of these two categories. The maximum difference in cumulative proportion for the two samples is statistically significant.

Table 12. Distribution of Responses to the Item: "Persons with Real Ability are Usually Given Recognition" by Migration Category

	Stables		Migrants	
	N	%	N	%
Strongly disagree	5	1.0	3	2.9
Disagree	52	10.4	21	20.4
Undecided	50	10.0	15	14.6
Agree	357	71.4	57	55.3
Strongly agree	36	7.2	7	6.8
Total	500	100.0	103	100.0
No response	13		0	

$P < .05$ using the Kolmogorov-Smirnov one-tailed test.

The hypothesis that migrants would be less satisfied with the North Dakota community than stables was supported by responses to the item "The climate is as good as any other place in the U.S.". The cumulative difference was greatest in the combinations of strongly disagree and disagree categories. Here 38.1% of the stables selected these categories as compared to 54.2% of the migrants. This difference was statistically significant (See Table 13).

Table 13. Distribution of Responses to the Item: "The Climate is as Good as any other Place in the U.S." by Migration Category

	Stables		Migrants	
	N	%	N	%
Strongly disagree	30	6.0	23	22.1
Disagree	130	26.1	50	48.1
Undecided	28	5.6	4	3.9
Agree	256	51.3	24	23.1
Strongly agree	55	11.0	3	2.9
Total	499	100.0	104	100.0
No response	14		8	

$P < .05$ using the Kolmogorov-Smirnov one-tailed test.

Analysis of responses to the item that "the school teachers are equal to teachers anywhere" failed to support the hypothesis that migrants would be less satisfied than the stables with the teachers in North Dakota. The difference in cumulative proportions on this item were quite small. The greatest differences were in categories indicating agreement (57.7% of the stables as compared with 51.4% of the migrants). This difference was not statistically significant (see Table 14).

Table 14. Distribution of Response to the Item: "The School Teachers are Equal to Teachers Anywhere" by Migration Categories

	Stables		Migrants	
	N	%	N	%
Strongly Disagree	3	.6	3	2.9
Disagree	35	7.1	9	8.6
Undecided	84	16.9	15	14.3
Agree	286	57.7	54	51.4
Strongly agree	88	17.7	24	22.9
Total	496	100.0	105	100.0
No response	17		7	

P-N.S. using the Kolmogorov-Smirnov one-tailed test.

In the item "the medical facilities are good and adequate", it was again expected that migrants would evidence less satisfaction with the North Dakota community than the stables. The maximum difference in the cumulative percentages was seen where 27.4% of the stables checked either agreement or the undecided category as compared to 12.4% of the migrants; the difference was statistically significant (see Table 15).

Table 15. Distribution of Responses to the Item: "The Medical Facilities are Good and Adequate" by Migration Category

	Stables		Migrants	
	N	%	N	%
Strongly disagree	37	7.4	3	2.9
Disagree	83	16.6	8	7.6
Undecided	17	3.4	2	1.9
Agree	282	56.3	62	59.1
Strongly agree	82	16.4	30	28.6
Total	501	100.0	105	100.0
No response	12		7	

$P < .05$ using the Kolmogorov-Smirnov one-tailed test.

In responding to the item "Salaries are usually fair and adequate in the community" it was expected that stables would evidence a higher degree of satisfaction than the migrants. This hypothesis was supported and the cumulative differences appear very great. The maximum difference was in the combination of the responses to the disagree and strongly disagree categories with 35.8% of the stables checking these as compared to 64.9% of the migrants. Using the Kolmogorov-Smirnov test the difference was found to be statistically significant (see Table 16).

Table 16. Distribution of Response to the Item: "Salaries are Usually Fair and Adequate in the N.D. Community" by Migration Category

	Stables		Migrants	
	N	%	N	%
Strongly disagree	35	7.1	18	16.7
Disagree	142	28.7	52	48.2
Undecided	52	10.5	7	6.5
Agree	248	50.2	30	27.8
Strongly agree	17	3.4	1	.9
Total	494	100.0	108	100.0
No response	19		4	

$P < .05$ using the Kolmogorov-Smirnov one-tailed test.

The next item included in the analysis of satisfaction with the North Dakota community and migration involves the rating of recreational facilities. It was expected that migrants would be less satisfied with North Dakota community in this respect. However, the cumulative differences between proportions was very slight, and not statistically significant (see Table 17).

Table 17. Distribution of Response to the Item: "Recreational Facilities are Abundant and Varied" by Migration Category

	Stables		Migrants	
	N	%	N	%
Strongly disagree	35	7.0	6	6.0
Disagree	194	38.9	43	43.0
Undecided	44	8.8	6	6.0
Agree	211	42.3	41	41.0
Strongly agree	15	3.0	4	4.0
Total	499	100.0	100	100.0
No response	14		12	

P-N.S. using the Kolmogorov-Smirnov one-tailed test.

Response to the item that "It is difficult for people to get together on anything" failed to support the hypothesis that migrants would be less likely to rate the community as satisfactory in terms of cooperation than the stables. The maximum cumulative difference existed when the strongly agree, agree and undecided categories are combined; 16.6% of the stables checked these as compared with 13% of the migrants (see Table 18).

Table 18. Distribution of Responses to the Item: "It is Difficult for People to Get Together on Anything" by Migration Category

	Stables		Migrants	
	N	%	N	%
Strongly agree	20	4.1	1	1.0
Agree	142	28.8	32	32.0
Undecided	82	16.6	13	13.0
Disagree	224	45.4	51	51.0
Strongly disagree	25	5.1	3	3.0
Total	493	100.0	100	100.0
No response	20		12	

P-N.S. using the Kolmogorov-Smirnov one-tailed test.

Analysis of response to the item "a person has to leave the community in order to have a good time" fail to support the hypothesis that migrants would be less satisfied with the North Dakota community than the stables. The maximum difference in cumulative proportion include the strongly disagree, disagree and undecided categories with 18.7% of the stables checking

these compared to 24.8% of the migrants. This difference was not statistically significant (See Table 19).

Table 19. Distribution of Responses to the Item: "That A Person Has To Leave the Community in Order to Have A Good Time" by Migration Category.

	Stables		Migrants	
	N	%	N	%
Strongly disagree	12	2.4	4	4.0
Disagree	62	12.6	16	15.8
Undecided	18	3.7	5	5.0
Agree	326	66.4	61	60.4
Strongly agree	73	14.9	15	14.9
Total	491	100.0	101	100.0
No response	22		11	

P-N.S. using the Kolmogorov-Smirnov one tailed test.

Differential responses to the item that "people have to do without adequate shopping facilities" fail to support the hypothesis that lower degree of satisfaction with the North Dakota community characteristics would be indicated by migrants. The maximum difference in cumulative proportions was very slight, and was not statistically significant (see Table 20).

Table 20. Distribution of Responses to the Item: "People Have to do Without Adequate Shopping Facilities" by Migration Category.

	Stables		Migrants	
	N	%	N	%
Strongly disagree	20	4.0	2	2.0
Disagree	105	21.2	24	24.2
Undecided	11	2.2	2	2.0
Agree	293	59.2	58	58.6
Strongly agree	66	13.3	13	13.1
Total	495	100.0	99	100.0
No response	18		13	

P-N.S. using the Kolmogorov-Smirnov one-tailed test.

Response to the item that "employment opportunities are practically nonexistent" failed to support the hypothesis that migrants found the North Dakota community less satisfying than the

stables. The greatest difference in cumulative percentages existed comparing the two migration categories in terms of the percent selecting the strongly disagree and disagree categories. Here 46.5% of the stables checked those as compared to 43.7% of the migrants; the difference was not statistically significant (see Table 21).

Table 21. Distribution of Responses to the Item: "Employment Opportunities are Practically Nonexistent" by Migration Category

	Stables		Migrants	
	N	%	N	%
Strongly disagree	49	9.9	13	12.6
Disagree	181	36.6	32	31.1
Undecided	39	7.9	10	9.7
Agree	205	41.4	44	42.7
Strongly agree	21	4.2	4	3.9
Total	495	100.0	103	100.0
No response	18		9	

P-N.S. using the Kolmogorov-Smirnov one-tailed test.

Anticipated Social Cost

It was expected that there would be differences in expected difficulty in meeting problems involved in migration as indicated by stables and migrants such that stables would have expected a more difficult time making adjustments than migrants. The percentage selecting each of five problem areas are presented in Table 22.

Table 22. Response to Item: "Measuring Anticipated Social Cost" by Migration Category

Do you think you would have a hard time:	Stables		Migrants		Probability
	N	%	N	%	
Finding Housing	483	41.4	101	18.8	.05
Finding a Job	472	47.0	93	8.6	.05
Getting Transportation	443	9.2	98	1.0	N.S.
Getting to Know Friends and Neighbors	486	16.3	102	15.2	N.S.
Making Family Adjustments	484	17.8	100	9.0	.05

Respondents were asked to check whether they would have difficulty in finding housing if they decided to more. A significant difference in the proportion selecting this item was found by using the test for significance of difference between proportions. The difference between proportions of stables selecting this item (41.4% of the stables and 18.8% of the migrants) appears to be substantial.

It was expected that the stables would envision more problems in finding a job than would the migrants. This hypothesis was supported in that 47% of the stables thought they would have trouble finding a job while only 8.6% of the migrants checked this item. This difference was statistically significant; the magnitude of the difference is striking.

It was found that more of the stables thought they would have a hard time getting transportation than the migrants. However, the difference was not large enough to be statistically significant; only 9.2% of the stables checked this category as compared to 1% of the migrants.

Difference in response to the item of "getting to know friends and neighbors failed to support the hypothesis that stables would envision more trouble than the migrants. The differences were quite small in that 16.3% of the stables checked yes to this as compared to 15.2% of the migrants. Using the test of significance between proportions this difference was not statistically significant at the .05 level.

It was expected that the stables would be more likely to anticipate a hard time making family adjustments than migrants. The expected relationship was supported in this study. The difference was found to be statistically significant at the .05 level although the magnitude of the difference appears to be small.

DISCUSSION

Analysis of the findings in this study lends support to most hypotheses listed above. Among the demographic and socioeconomic factors which differentiate between stables and migrants in the predicted direction are age, and measures of social rank such as educational attainment, occupational status before and after migration, present income, and change in occupational status over the past five years (See table 23 for a summary of the relationship between these variables and migration category).

Table 23. Summary of Analysis of Relationship Between Demographic and Socioeconomic Variables and Migration Category.

Variables	Migration Category
Marital Status	N.S.
Age	(-)*
Educational Attainment	(+)*
Occupation Status 5 years ago	(+)*
Occupation Status at present	(+)*
Present Income	(+)*
Occupational mobility	(+)*
Organizational membership	N.S.

*Statistically significant at the .05 level.

Migrants tend to be younger in age. The mean age for the migrant was 40.2 years; the average for the stable was 46.0 years. Migrants show a higher level of educational attainment than stables. While 60.3% of migrants failed to enroll in programs beyond high school, 82.7% of the stables limited their educational attainment to completion of high school. While 6.9% of the stables are college graduates, 24.3% of the migrants completed at least four years of college.

Using a ranking of occupational category it was found that migrants are more likely to have been in higher ranked non-farm occupations than stables before as well as after the migration period. Also, it is more probable that migrants have changed occupations more than stables. In terms of social mobility, migrants tend to achieve both upward and downward mobility to a greater extent than stables.

A surprising finding which appears counter to a hypothesis is indicated where migrants are more likely to be married than the male stables. This factor may result from the rural nature of North Dakota as compared to the population characteristics of the receiver states. There is a surplus of males in the rural population; in the urban area there is a surplus of females. There are greater opportunities for males to marry if they should migrate than would be the case if they stayed in North Dakota.

While differences between migrants and stables in the item of organizational membership were not significant the direction was consistent with that anticipated in the hypothesis.

Three types of social psychological variables includes occupational aspiration, community satisfaction, and anticipated social cost. It was expected that aspiration is associated with migration in that migrants will more likely aspire to more prestigeful positions than stables. Analysis of the data supports this hypothesis (See table 24).

Table 24. Summary of Analysis of Relationship Between Social Psychological Variables by Migration Category.

Variables	Migration Category
Occupational Aspiration	(+)*
Community Satisfaction	
Progress	(-)*
Leadership	N.S.
Recognition of Ability	(-)*
Climate	(-)*
Teachers	N.S.
Medical Facilities	(-)*
Salaries	(-)*
Recreation	N.S.
Cooperation	N.S.
Entertainment	N.S.
Shopping Facilities	N.S.
Employment Opportunities	N.S.
Anticipated Social Cost	
Finding housing	(-)*
Finding a job	(-)*
Getting transportation	N.S.
Getting to know friends and neighbors	N.S.
Making family adjustments	(-)*

*Statistically significant at the .05 level.

The set of community satisfaction variables include items which express a favorable orientation toward the North Dakota community as well as a number of items which are phrased to indicate unfavorable feelings toward the community. It was expected that migrants indicate less agreement with items which express favorable characteristics and more agreement with unfavorable statements. Among the significant relationships reported in this phase of the analysis include differences in attitudes toward the extent to which progress is approved, the feeling that persons with real ability are usually given recognition and satisfaction with the North Dakota climate. Migrants were less likely than stables to feel that medical facilities are good and adequate. Migrants were less favorably orientated to the salary scale in the North Dakota community than stables.

Analysis of data provided by stables and in and out-migrants from North Dakota fail to support the expectation that migrants are more likely to agree with those items which express unfavorable characteristics of the community. A possible reason why these items failed to discriminate between migrants and stables might be the difficulty of interpreting in responding to negatively phrased statements. A number of interviewers indicated to one of the authors that some respondents expressed difficulty in that they didn't understand the negatively worded items which the subject considered in the statement, for example "adequate shopping facilities".

Concluding the discussion of the relationship between community satisfaction and migration behavior considering all community satisfaction items it is evident that migrants are less satisfied with a number of attributes of their home community than those who have remained in their North Dakota community. This provided some support for the general hypothesis that migrants are likely to be less satisfied with their sending community than the stables. However, the authors feel that future research can be guided by the findings that the adequacy of specific community characteristics may be more important than others as determinants of migration than others. Future research in exploring this relationship can be directed toward replication of this research in other areas as well or gathering data which would follow-up the experience of those who are now stables in North Dakota in order to see the extent to which the satisfaction with specific community characteristics are

associated with actual migration behavior after the data is gathered.

Another set of characteristics which supposedly differentiates between the migrant and the stable resident involve the measures of anticipated social cost. Three of the five measures were associated with migration status. Migrants were less likely to feel that they would have trouble finding housing if they moved to another community. In addition, the migrants felt that they would have less trouble finding a job and making family adjustments than did the stables. The other differences were not statistically significant.

CONCLUSION

The findings of this study lend further support to most of the hypotheses which were based on presently available research literature. Thus it was found that out-of-state migrants differ from stables living in the sender community in that they tend to be younger, better educated, of higher ranked occupational categories (for the non-farm population). It is more likely that migrants will experience occupational mobility than stables. The hypothesis that occupational aspiration is higher among migrants is supported by a statistical test. Furthermore the general hypothesis that community satisfaction is negatively associated with migration behavior receives some support in that differences in response to six of the twelve items were statistically significant. Finally, of the five items used as indexes of anticipated social cost, responses to three were associated significantly with migration status.

Several important implications of this study should be noted as guides to future research in the area of migration. Further research is indicated in consideration of relationship between the marital status and migration status. It appears that the shortage of females in a rural area as compared to an excess in the urban community may account for the fact that a higher proportion of migrants are married. The findings relative to community satisfaction and migration imply that future research should be conducted on the specific dimensions of community satisfaction, i.e. satisfaction with schools, churches, the economic institutions, etc., to examine how rating of the sender community in these areas play a part in the decision to migrate. In addition further analysis of the relationship between anticipated social cost and migration research should focus on the specific problem areas in which the individual's concern for adjustment may effect migration behavior.

This study has focused on the interrelationships between demographic, socioeconomic and social psychological variables and migration status. Discussion of the statistical analysis has focused on the extent to which male stables and migrants may be differentiated according to our variables. The authors have avoided the labeling of variables as "independent" and "dependent", i.e., little or no reference is made to casual sequences in the hypotheses, analysis and

discussion of the results. The avoidance of inferring cause-effect relationships is due to the cross-sectional nature of the study. Accordingly, the authors recommend a longitudinal study of those respondents who are presently in the "Stable-sample". Measurement of aspirations, satisfactions and anticipated social cost variables which were made in 1966-67 would be associated with subsequent migration behavior of those individuals. The result of this procedure would be the placement of social psychological indexes as being antecedent to the dependent variable of migration.

Although it is not possible to assign cause and effect labels to variables, implications from this study have some practical importance which should be of interest to policy-makers at the national, state, and local levels, particularly in rural areas which are suffering from population decline. The importance of the migration behavior in the overall process of occupational achievement is evidenced by significant relationships between migration status and occupational status, income, occupational mobility, and satisfaction with salary scales in the community. It appears that improvement of occupational opportunities through industrial expansion may be used to enable a community to retain its population. Improvement in a number of areas would also assist in helping the community to stop population loss. The upgrading of salaries at the local level might help in the retention of the community's population. The development of better educational facilities might give the community an asset when it attempts to attract industry.

From the point of view of the individual it is apparent that the migrant has been more successful in achieving a position of high occupational status than his stable counterpart. In comparison with those who remained in the North Dakota community it appears that the migrant is in a position of relative advantage. Yet the migrant from a rural area lags behind the native of a receiver community in occupation, housing, and in other areas.[20]

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[20] Sjaastad, Larry, "Occupational Structure and Migration Patterns." Center for Agricultural and Economic Adjustment. Labor Mobility and Population in Agriculture, Iowa State University Press, Ames, Iowa, 1961. Also J. Allan Beegle, "Sociological Aspects of Changes in Farm Labor Force," Labor Mobility and Population in Agriculture, ed. Earl O. Heady, Ames, Iowa: State University Press, 1961.

Improved education in academic and vocation programs and better counseling might help the individual in making his adjustment to the new community.

It is recommended that more emphasis be placed on the providing of vocational education programs in rural areas. Analysis of educational and occupational attainment of migrants leads the authors to this recommendation. Preparing the outmigrant for occupations provided by his potential receiver community would enhance his future occupational success. Failure for the rural community and state to do this might lead to a failure of the migrant to make satisfactory adjustment in the receiver community. Furthermore if this failure is experienced by the outmigrant it is possible that he might return to his sender community as a burden on its financial resources. Thus the sender community in its own self-interest should provide improved vocational education programs.

A second consideration faced by the local community is the importance of industrial development should the community wish to retain its population. Analysis of conditions for migration has emphasized the importance of occupationally related reasons for migration. Industrial development in a rural area would enable the community and the state to retain more of its population. However industrial development requires a well trained labor force. Before industry can be attracted it must be convinced there is a labor force which have the skills required by the industry. Thus vocational education programs can be seen as a means to be used in attracting the industry necessary to provide the basis for meeting the aspirations and desires of the person who would otherwise leave the community or state.